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Patent  
Attorney's Docket No. 026125-076

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of )

Erland CASSEL et al. )

Application No.: 09/887,144 )

Filed: June 22, 2001 )

For: Antenna for a Portable )  
Communication Apparatus, and a )  
Portable Communication Apparatus )  
Comprising Such an Antenna )

**Mail Stop Appeal Brief - Patents**

Group Art Unit: 2821

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Examiner: Michael C. Wimer JUN 10 2004

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**REPLY BRIEF TO EXAMINER'S ANSWER UNDER C.F.R. § 1.193(b)**

**Mail Stop Appeal Brief - Patents**  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

This Reply Brief under 37 C.F.R. § 1.193(b) is submitted in response to the Examiner's Answer mailed April 5, 2004 (Paper No. 14).

Two extra copies of this brief are being filed herewith.

No fee is due for the Reply Brief. The Commissioner is authorized to charge any fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

**I. SUPPLEMENTAL ARGUMENTS**

At the outset, the Appellants concur that claim 30 on page 2 of the Appendix of their Appeal Brief mailed October 14, 2003, contained a typographical error, and that on the last line of the claim, "he" should read --the--.

The Appellants respectfully acknowledge the Examiner's Answer, but continue to disagree with the Examiner's position for the reasons set forth in their Appeal Brief. In addition to those reasons, the Appellants believe the finally rejected claims of Group 2 are allowable over Kenoun for the following reasons.

**A. THE CLAIMS OF GROUP 2 ARE NOT ANTICIPATED BY KENOUN BECAUSE KENOUN DOES NOT DISCLOSE A FEEDBACK CONDUCTOR HAVING A FIRST END, WHICH IS ELECTRICALLY CONNECTED TO THE SECOND END OF THE ELONGATED HELICAL RADIATOR**

**1. Kenoun**

Kenoun disclose a wide-band dual-mode antenna. The antenna 10 includes an electrically conductive wire 50 having a first end 52 that is electrically coupled through a monopole portion 12 to a transceiver circuit (i.e., radio circuitry) of a cellular communication device. Col. 2, ll. 44-49; col. 3, l. 65 - col. 4, l. 2; and FIG. 3. The wire 50 includes three segments. A first linear segment 56 extends from the first end 52 of the wire 50 to a U-shaped portion 68. A second linear segment 58 extends from the U-shaped portion 68 of the wire back toward the first end 52 of the wire 50 and the monopole portion 12. A third segment 62 includes a linear offset portion 64, connected to the second linear segment 58 near the monopole 12, and a helical portion 66. The helical portion 66 extends from the linear offset portion 64 to a second end 54 of the wire 50 that is electrically floating. Col. 4, ll. 4-11; and FIG. 3.

Accordingly, Kenoun disclose an antenna having a helical portion 66 with a first end connected to a linear offset portion 64 of the antenna and a second end, corresponding to second end 54 of the wire 50, that is electrically floating.

**2. Features of the Claim 18**

Claim 18 recites "said radiator is an elongated helical radiator". Accordingly, claim 18 further defines the antenna of claim 17 to include "an elongated helical radiator having a first end to be connected to radio circuitry in the portable communication apparatus, and a second end" and "a feedback conductor having a first end, which is electrically connected to the second end of the elongated helical radiator". The claims further recite that the feedback conductor extends "along the elongated helical radiator in a first direction from the second end of the elongated helical radiator towards the first end of the elongated helical radiator".

The antenna of claim 18 differs from the antenna arrangement described in Kenoun in that the second end of Appellants' elongated helical radiator is electrically connected to the first end of a feedback conductor. In contrast, the second end 54 of Kenoun's helical portion 66 is electrically floating.

### **3. Response to Examiner's Answer**

The Appellants argue on page 15 of their Appeal Brief that Kenoun does not disclose an elongated helical radiator having a first end to be connected to radio circuitry in the portable communication apparatus. In response, the Office asserts that the first end of Kenoun's helical portion 66 is connected to a cellular communication device through portions 64, 58, and 56 of the wire 50. See Examiner's Answer, p. 9, para. 3. Based on this assertion, the Office concludes that Kenoun's helical portion 66 is connected to the radio connector via other wire portions, and therefore meets the limitations of the claims. Id.

The Appellants disagree with the Office's claim construction and how Kenoun is being applied to the claims for the reasons set forth in their Appeal Brief. Nevertheless, the Office's construction set forth in the Examiner's Answer bring to light further distinguishing features between the cited document and the invention defined by claim 18.

For example, the Office's claim construction requires that all portions of Kenoun's electrically conductive wire 50 provide the electrical connection between the first end of the helical portion 66 and the portable communication apparatus. In other words, the Office contends that all portions of Kenoun's conductive wire 50 are connected to the first end of the helical portion 66. Consequently, there are no remaining portions of the wire 50 that can correspond to a feedback conductor having a first end, which is electrically connected to the second end 54 of Kenoun's helical portion 66, as claim 18 requires. Indeed, FIG. 3 clearly shows that the second end 54 of Kenoun's helical portion 66 is electrically floating. Accordingly, claim 18 is believed not to be anticipated by Kenoun for this reason as well.

In addition, Kenoun also does not disclose a feedback conductor that extends along the helical portion 66 in a first direction from the second end 54 of the helical

portion 66 towards the first end of the elongated helical radiator, as claim 18 requires. The only portion of Kenoun's conductive wire 50 that can be said to extend along the helical portion 66 in the recited first direction is the portion 58. Indeed, the Office states on page 3 of the Examiner's Answer that "[t]he radiator 10 includes a feedback conductor 58 (i.e., the second segment) having a first end (at numeral 68) and extending along the radiator 10 in a first direction, from the second end (at 68) of the radiator towards the first end (at 16) of the radiator 10".

But, as discussed above, the Office also asserts on page 9 of the Examiner's Answer that the portion 58 of Kenoun's conductive wire 50 is connected to the first end of the helical portion 66, not to the second end 54 of the helical portion 66, as claim 18 recites. Accordingly, claim 18 is believed not to be anticipated by Kenoun for this reason as well.

Therefore, because Kenoun does not disclose a feedback conductor having a first end, which is electrically connected to the second end of the elongated helical radiator, the claims of Group 2 are considered patentable over the cited document.

## II. CONCLUSION

For the reasons set forth in Appellants' Appeal Brief and the additional reasons set forth above, it is respectfully submitted that the rejection of claims 17-21, 25, 26, and 30-32 is improper and should be reversed.

Respectfully submitted,

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Dated: June 4, 2004

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Mail Stop Appeal Brief - Patents on June 4, 2004.

  
Kathryn Boyd